Becampanel

Cat. No.: HY-15073

CAS No.: 188696-80-2

Molecular Formula: $C_{10}H_{11}N_4O_7P$

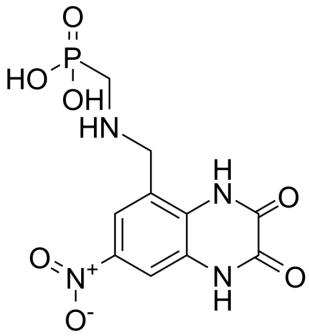
Molecular Weight: 330.19

Target: iGluR

Pathway: Membrane Transporter/Ion Channel; Neuronal Signaling

Storage:

Powder	-20°C	3 years
	4°C	2 years
In solvent	-80°C	6 months
	-20°C	1 month



BIOLOGICAL ACTIVITY

Description	Becampanel (AMP397) is the first competitive AMPA antagonist and an antiepileptic agent.
In Vitro	Becampanel is negative in a mouse lymphoma tk assay, which includes a 24 h treatment without S9. A weak micronucleus induction in vitro is found at the highest concentrations tested in V79 cells with S9[1]. MCE has not independently confirmed the accuracy of these methods. They are for reference only.
In Vivo	Becampanel is negative in the following in vivo studies, which includes the maximum tolerated doses of 320 mg/kg in mice and 2000 mg/kg in rats. Becampanel has no genotoxic potential in vivo[1]. MCE has not independently confirmed the accuracy of these methods. They are for reference only.

PROTOCOL

Animal Administration [1]	The study protocol is in compliance with the corresponding OECD guideline. The test article is dissolved in 0.2 M $NaHCO_3$. The dose-finding experiment with Becampanel shows that treatment of CD-1 mice by oral gavage with 450.5, 500 or 800 mg/kg, twice with an interval of 24 h, leads to strong signs of toxicity such as laboured breathing, ataxia, and strong sedation. At 320 mg/kg, the same symptoms are visible, but with less severity, and no animals die. On the basis of these results, doses of 32, 100 and 320 mg/kg are chosen for this micronucleus test. In the main experiment five male and five female mice are treated as described above and bone marrow is sampled 48 h after the first application. Nucleated cells are removed from the bone marrow samples using cellulose columns. The cells are loaded on poly-l-lysine coated glass slides by cytocentrifugation using a Shandon Cytospin stained with May Grunwald stain (5%) and Giemsa (14%). The slides are automatically evaluated with a LEITZ MIAS image analyser. No statistical analysis is performed since all values in the treated groups are≤the frequency of micronucleated polychromatic erythrocyte in the concurrent vehicle control group. MCE has not independently confirmed the accuracy of these methods. They are for reference only.

REFERENCES

[1]. Suter W, et al. Genotoxicity assessment of the antiepileptic drug AMP397, an Ames-positive aromatic nitro compound. Mutat Res. 2002 Jul 25;518(2):181-94.

Caution: Product has not been fully validated for medical applications. For research use only.

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